

New UCC director named to board; dividend increased to 85¢



Gray

Harry J. Gray, chairman, president and chief executive officer of United Technologies Corporation, has been elected a director of Union Carbide Corporation, according to an announcement from William S. Sneath, chairman of UCC's board.

Gray was elected president and chief administrative officer of United Technologies when he joined the corporation in 1971, and was also elected to the board of directors and its executive committee. He became chief executive officer on January 1, 1974, and assumed the post of president and chief operating officer from

Alexander M. Haig Jr. on January 21, 1981, when Haig was confirmed as U. S. Secretary of State.

Prior to that time, Gray was senior executive vice-president of Litton Industries, and was executive vice-president and general manager of Greyhound Lines, a division of the Greyhound Corporation.

Gray is a director of Citicorp and Citibank, New York City, and the Aetna Life and Casualty Company.

Born in Milledgeville Crossroads, Ga., Gray has a BS in journalism and an MS from the University of Illinois.

The board of directors of Union Carbide Corporation has voted to increase the quarterly dividend payment to 85¢ a share on the outstanding common stock of the corporation. The company's 257th dividend is payable September 1, to stockholders of record on July 31.

William S. Sneath, Union Carbide's chairman and chief executive officer, said of the increased dividend payment: "Our goal is to provide investors an increasing total return through a combination of capital appreciation and dividends. In line with that goal, we plan to raise the dividend from time to time, but only to levels we think we can sustain while funding our planned growth."

The new dividend represents an increase of 6.25 percent over the prior dividend of 80¢ paid June 1.

UNION
CARBIDE

Nuclear Division News

• Vol. 12, No. 16 • August 13, 1981



EARN'S AWARD — The Nuclear Division of Union Carbide recently received two awards from DOE for its achievements in contracting with both small and minority businesses. Accepting the award, at left, is Harold H. Osborne, general purchasing agent. Making the award is J. D. Wagonor, director of Procurement and Contracts Division of DOE, and W. Willard Latham, contract specialist with DOE.

Division earns citation for minority business contracts

The Nuclear Division has received two awards from the secretary of the Department of Energy for its achievements in contracting with both small and minority businesses. During fiscal year 1980, a total of \$141,869,000 was awarded to small businesses and \$17,136,000 in awards to minority businesses. Both amounts significantly exceeded goals set the previous year.

The two plaques were presented recently to Harold H. Osborne, general purchasing agent for the four plants operated by Union Carbide.

In a congratulatory message, Robert J. Hart, manager of the Oak Ridge Operations of DOE, stated, "This award is the highest recognition of achievement issued by the Department for your efforts. Such participation is deemed to be vital to the economic development and stability of our nation's economy."

"We congratulate you and your staff for your significant accomplishments during fiscal year 1980 and urge you to continue and expand your efforts wherever possible," Hart concluded.

Union Carbide sales for 1st two quarters up by 29 percent

UNION CARBIDE CORPORATION has announced that 1981 second quarter net income increased 29 percent, to \$193.4 million, while sales rose 13 percent to \$2.67 billion. Earnings per share were \$2.86 compared to \$2.25 in the second quarter of 1980.

For the first six months of 1981, net income totaled \$371.4 million, virtually the same as last year. First-half earnings per share were \$5.50 compared to \$5.57 last year on a comparable basis. The per share total is based on a greater number of shares outstanding this year. Sales for the first six months increased 8 percent, to \$5.31 billion.

William S. Sneath, chairman and chief executive officer, noted that

Union Carbide's earnings this year have kept pace with those of last year despite weakness in some economic sectors. He said the second quarter gain resulted from a balanced product mix and strength in earnings from operations of most domestic businesses.

Contributing to Union Carbide's performance in the first half were above average domestic sales increases for most chemicals and plastics products; carbon products; industrial gases; and battery products together with home and automotive products.

In the international areas, strong six-month sales in Latin America and Canada outweighed weaknesses in Europe and Africa.

In this issue...

Harold G. Long, a Y-12 guard, is recognized as the highest-ranking Caucasian in the field of Isshinryu Karate. His interesting 'different drummer' story is found on page 7.

Other features included:

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Walter heads Paducah's
Technical Services Page 3

Employees save a life
with CPR Page 4

Loebl named to new section
in Energy Division Page 5

Dr. Lincoln Page 8



Question Box

Why not radios in Paducah?

QUESTION: Why does company policy prohibit bringing AM/FM radios into the Paducah plant? A little soft music would make a more enjoyable work environment.

ANSWER: Personal radios have been officially banned from Nuclear Division installations since the earliest days of the Manhattan Project during World War II. The ban originated because classified security matters could be adversely affected; also, variations in personal preferences as to both the volume and type of radio entertainment might prove to be disruptive. These reasons continue to be valid.

Employees are reminded that employee regulation No. 5 contained in the booklet, *You at Union Carbide*, states "You are not permitted unauthorized cameras, radios (other than car radios), recorders or transmitters on company premises." Regulation No. 6 prohibits employees from bringing personal property into the plant other than that required in the performance of their work.

Employees are again asked not to bring radios to work, and supervisors are reminded of their responsibility to enforce established regulations.

Fly ash emission

QUESTION: Many of us who own white cars are concerned about the fly ash in Y-12. Is there any plan to improve this situation? Also, when you leave the windows down in government vehicles, there is grit all over the seats.

ANSWER: It is planned to install new coal pulverizers on all boilers in the Y-12 steam plant and new burners on one of the boilers. This work, which is expected to be completed in 1982, will provide better combustion and reduce emissions. Design is under way for baghouse dust collectors to replace the deteriorated electrostatic precipitators. Although it will be several years before the baghouse dust collectors are installed and operational, they will practically eliminate fly ash emissions during normal operating conditions.

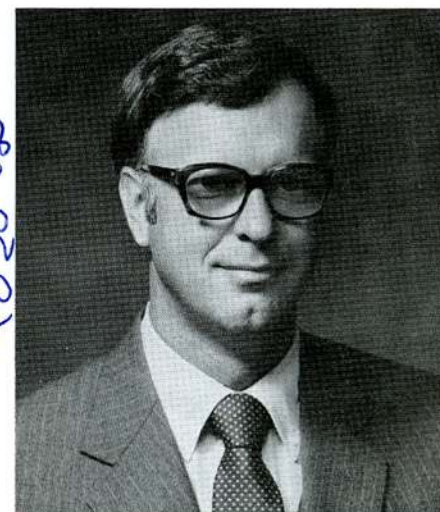
Quality Assurance manager

John M. Gerwels has been appointed Quality Assurance manager for the Nuclear Division. He succeeds Fred Mundt, who has transferred to the Corporation's Linde Division in Speedway, Ind.

In describing his new position, Gerwels said, "Our objective is to maintain an exemplary, cost-effective quality assurance program. While much progress has been made in the systematic and formal aspects of quality assurance within the Division, we must increase our commitment to quality and improve our use of effective quality assurance methods throughout the entire organization. It is also vital that each employee understand the importance of quality work so that our programs are successful and our products reliably meet their intended use."

Gerwels grew up in Goshen, Ind. He graduated magna cum laude from the University of Dayton in 1966 with a BS degree in mathematics. He was awarded a National Science Foundation fellowship to Purdue University, where he received his MS degree in mathematical statistics in 1968. He has taken additional courses in management science at the University of Tennessee.

Prior to joining the Nuclear Division in 1968 as a statistician at the



John M. Gerwels

Y-12 Plant, Gerwels was an assistant mathematician at the University of Dayton Research Institute. He began working in the ORGDP Technical Services Division in 1973, and was appointed head of the Systems Services Department in 1978. Since 1980, he has served as superintendent of the Statistical Quality Control Department of the Y-12 Plant's Quality Division.

Gerwels is a member of the American Society of Quality Control and the American Statistical Association.

He has three children. He and his wife, Judy, live on North Monticello Drive in Farragut.

Teichert promoted at ORGDP



Teichert

William P. Teichert Sr., a senior technologist in the Separation Systems Division at ORGDP, has been promoted to development test engineer.

A native of Pennington Gap, Va., he attended Lincoln Memorial University, the University of Kentucky and the University of Tennessee with majors in chemistry, mathematics, and mining and chemical engineering.

Teichert, who served in the U.S.

Navy, was previously employed by Blue Diamond Coal Company and Dayton (Ohio) Power and Light Company. In 1954, he joined the Nuclear Division at ORNL where he worked on the homogeneous and molten salt reactor projects.

Since 1973, Teichert has held several positions in the centrifuge development department of Separation Systems. He has provided technical support in many of the process buildings, and is currently responsible for advanced machine development testing.

He and his wife, Barbara, live at Route 4, Clinton. They have two grown children.

Next issue...

The next issue will be dated August 27. The deadline is August 19.

Green promoted in Solid State

Phyllis H. Green has been promoted to administrative assistant to the director of the Solid State Division at ORNL.

Green will be responsible for various activities associated with the operation of the division, including the preparation and maintenance of all administrative, personnel and materials reports.

She joined Union Carbide in 1968, after receiving a BS degree in business administration from the University of Tennessee. Green has served as senior secretary for the Solid State Division since 1969 and attained the rating of Certified Professional Secretary in 1975.



Green

A native of Copperhill, Tenn., Green and her husband, Charles, live at 213 Sweet Lane, Clinton.

Jazz concert set for August 23

The Forest Flower Quintet, a jazz group, will perform Sunday, August 23, at 7:30 p.m. at the Oak Ridge Performing Arts Pavilion. This concert is the third in the Oak Ridge Concert Series co-sponsored by the Nuclear Division, the Arts Council of Oak Ridge and the City Recreation Department.

The quintet is characterized as a mainstream jazz group, playing the old standards as well as avant garde, and swing as well as fusion-funk.

Performers include Bill Scarlett, Tom Richeson, Keith Brown, Charles Rule and Mark Smith. The members have considerable road experience, performing with Jack Teagarden, Woody Herman, The Spinners, Diana Ross and other well-known entertainers.

Persons attending the August 23 concert should bring their own lawn chairs or blankets. There is no admission charge; however, donations are used to defray expenses.

UNION CARBIDE

Published every other week for employees such as:



Bea Hatmaker, a laborer in the ORGDP Maintenance Division.

Nuclear Division News

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NUCLEAR DIVISION
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Oak Ridge, Tenn. 37830

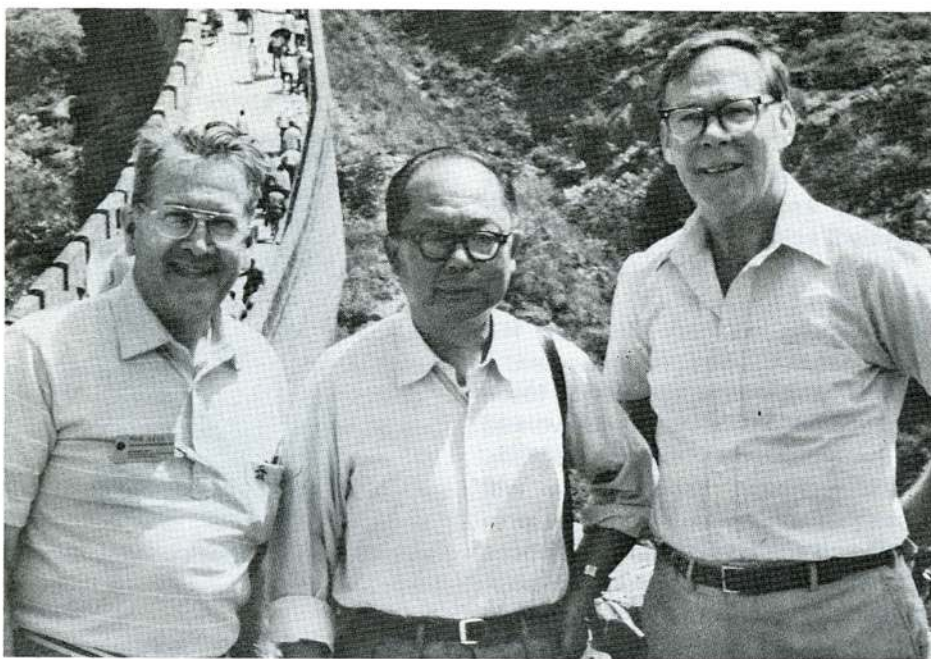
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PADUCAH
Darlene M. Mazzone, Bell 208

INTERNATIONAL ASSOCIATION
OF BUSINESS COMMUNICATORS



Gray

Zhau

Korchynsky

Staffers visit Republic of China

Robert J. Gray of ORNL's Metals and Ceramics Division recently completed an American Society for Metals (ASM) tour of the People's Republic of China. He is shown above with Fu Jun Zhau, deputy secretary of the Chinese Society of Metals (CSM), and Michael Korchynsky, director of alloy development for UCC's Metals Division, at the Great Wall.

The 12-member ASM delegation toured China May 16-June 6 as guests of CSM. The delegation presented seminars and visited universities, research institutes and

production facilities in an effort to stimulate the exchange of information on metals and materials development between the two countries. A CSM delegation is expected to visit the United States in 1982.

Gray, a senior staff engineer with the special projects staff of the Metals and Ceramics Division, joined ORNL in 1948. He received a bachelor's degree in biology and chemistry from Sterling College, Sterling, Kan., in 1941. He and his wife, the former Wanda Page, reside at 137 Orchard Lane, Oak Ridge. They have two grown children.

Learn to drive defensively

Here are some tips to help you brush up on your driving skills from the National Safety Council's Defensive Driving Course.

Avoiding Rear-end Collisions — There are four steps you can take to avoid being hit from the rear:

1. Signal your intentions in time.
2. Stop smoothly.
3. Stay clear of tailgaters by slowing down and allowing them to pass.
4. At intersections, keep your foot on the brake to activate the brake lights. Stop far enough behind the car ahead so that you can see its rear tires.

Following-distance Rule — When you drive behind another vehicle, the following-distance rule is two seconds between you and the vehicle ahead.

When the driver in front passes a fixed marker such as a light pole or a line on the road, begin counting "one-thousand-one, one-thousand-two." If you reach the marker before you finish counting, you are following too closely. Ease your foot off the gas pedal and try again.

The two-second rule will allow plenty of space between you and the vehicle ahead to avoid a collision if the driver should stop suddenly.

Savings Plan-Personal Investment Account

	Fixed Income Fund	UCC Stock	Equity Investment Fund
December 76	13.0553	59.2723	8.8166
December 77	14.2017	40.9096	8.0427
March 81	18.8894	59.2256	12.9747
April 81	19.0386	59.2476	12.8204
May 81	19.1882	56.0036	12.9300
June 81	19.3391	58.6257	12.7942

Note: Fixed Income Fund unit values reflect interest additions to achieve the guaranteed effective annual interest rate of 9.75% for 1981. Union Carbide stock values are the average cost of stock purchased during the month. Equity Investment Fund unit values represent the month-end market value of securities held by the Fund. The price of each unit is determined by dividing the total value of the securities by the number of units in the Fund.

Carl Walter named to head Technical Services at Paducah

Carl W. Walter has been named manager of the Technical Services Division of the Paducah Plant. Walter joined the plant in 1951 upon graduation from Ohio State University with a BS in chemistry. He has also done advanced academic work in the areas of nuclear engineering and business administration. During the past 30 years, Walter has held various supervisory and technical support positions, the most recent being manager of the Operations Planning Department in the Cascade Operations Division.

As manager of the Technical Services Division, he will direct the work of five departments employing a total of approximately 100 people involved in analytical and developmental type laboratory services as well as plant information processing functions.

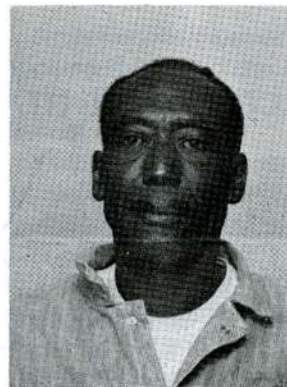
Walter is a native of Carroll, Ohio, and serves on the American National Standards Institute standards committee N14.1 on the packaging of uranium hexafluoride for transport.



Carl W. Walter

He and his wife, Margaret, have three children. The Walters reside on Margaret Court in Paducah.

Three Nuclear Division men die



Mr. Carr



Mr. Jordan



Mr. Walker

Varnard F. Carr, Research Services in Y-12, died at his Newport, Tenn., home, July 31. A native of that city, he joined Union Carbide in 1948.

Mr. Carr served in the U.S. Army from 1949 until 1950, and worked with Roane-Anderson and South Central Bell before coming to Y-12.

Survivors include his father, Abraham Carr; uncles, Joe Carr and Ulys Olden; aunts, Esther Olden, Mabel and Eva Carr; and a cousin, James Olden.

Funeral services were held at Maloy's Chapel, Newport, with burial in Faubian Cemetery, Parrottsville.

Don A. Jordan, a foreman in Y-12's Maintenance Division, died at his home at 117 Potomac Circle, Oak Ridge, July 30. A native of Salt Lake County, Utah, Mr. Jordan was active in The Church of Jesus Christ of Latter-day Saints. He joined Union Carbide in 1968.

At the age of 50, he obtained a bachelor's degree in education from the University of Tennessee and served as a substitute teacher at the Anderson County Occupational Center.

Survivors include his wife, Louie Mae Gilkey Jordan; two sons, Rogers

G. and Win G. Jordan; his father, Alfred E. Jordan; a brother, Ray A. Jordan; four sisters, Mary Ricks, Amy Jordan, Beth Porter and Vera Atwood; and four grandchildren.

Funeral services were held at The Church of Jesus Christ of Latter-day Saints at Oak Ridge, with burial in Oak Ridge Memorial Park. The family has requested that any memorials be in the form of contributions to the University of Tennessee Memorial Hospital, for cancer research.

Austin F. Walker, a carpenter in the ORNL Plant and Equipment Division, died July 31 at his home at 138 East Wadsworth Circle, Oak Ridge.

A 23-year Carbide employee, he was a member and a deacon of Calvary Baptist Church of Oak Ridge. Mr. Walker was a U.S. Army veteran of World War II.

Survivors include his wife, Zelma Guy Walker; a son, Larry D. Walker; daughters, Penny Rainey and Trudy Walker, all of Oak Ridge; a brother, Cloice Walker; a sister, Nora Lee Keller; and a half-brother, Jack Rogers.

Services were conducted at Calvary Baptist Church, with burial in Oak Ridge Memorial Park.

News About People



Cunningham



Scott

Named to American Nuclear Society posts

John E. Cunningham and James L. Scott of ORNL's Metals and Ceramics Division have been named committee vice chairmen in the American Nuclear Society (ANS).

Cunningham, who is associate director of the Metals and Ceramics Division, is now the vice chairman of the Honors and Awards Committee

of ANS. He has been a member of the ORNL staff since 1945.

James L. Scott, manager of the Fusion Materials Program in the Metals and Ceramics Division, is now vice chairman of the Publications Steering Committee. He was a member of the UT faculty before coming to ORNL in 1956.

Day earns Certified Public Accountant title



Day

Jeff Day, financial assistant in the Finance and Materials Division at ORNL, was recently awarded the Certified Public Accountant (CPA) certificate in the state of Tennessee. It was issued after one year's public accounting experience, receipt of a master's degree in accounting and the successful completion of the two and one-half day uniform CPA examination. While earning his BS in accounting from Carson-Newman College, Day worked as a summer employee in the Computer Sciences and General Accounting Divisions at ORGDP.

Caton will chair local ASIS chapter

Gloria M. Caton, research associate in the Information Division's Fossil Energy Information Center at ORNL, has been elected chairman of the East Tennessee Chapter of the American Society for Information Science. She is also chairman-elect of the society's national special interest group on energy and the environment. ASIS is dedicated to the improvement of the information-transfer process through research, development, application and education. It also provides a forum for the discussion, publication and critical analysis of work dealing with the theory and practice of the communication of information. A member of the American Chemical Society and the Oak Ridge Chapter of Sigma Xi, Caton joined Union Carbide in 1971.



Caton

Clark named technical assistant in physical sciences at ORNL

Bruce R. Clark has been appointed technical assistant to Alexander Zucker, associate director for the physical sciences of ORNL.

Since 1974, Clark has been a member of the research staff in the Analytical Chemistry Division. His work has concentrated on the health and environmental aspects of fossil fuel utilization. Previously he worked in the Molten Salt Reactor Program.

As technical assistant he will assist in the administration of programs in the basic energy sciences and nuclear physics that are supported by more than \$40 million annually in funds provided by the Department of Energy and other federal agencies.

These programs in the chemical, materials and nuclear sciences provide new fundamental understanding as well as supporting the development of nuclear and non-nuclear energy technologies.

Clark succeeds Susan K. Whatley, who has completed a 19-month assignment and is transferring to



Clark

ORNL's Chemical Technology Division, where she will head a new technical support section.

Clark holds a BS degree from Park College, Kansas City, Mo., an MS in analytical chemistry from Stanford University and the PhD in analytical chemistry from the University of Wisconsin.

Clark and his wife, Diane, have two children. The Clarks live at 4512 High Vista Lane, Knoxville.

CPR, heart massage at bowling alley save Y-12er Tom Hillard's life



HAPPY REUNION — Tommy Hillard, center, got the opportunity to thank Edwards, left, and Runkles for saving his life when they visited him recently.

The concern by Nuclear Division employees for the safety and health of others has always contributed greatly to our safety efforts both on and off the job. A prime example of this mutual concern was presented recently when two employees saved another's life.

On April 13, Tommy E. Hillard, Y-12 Reproduction Department, suffered a heart attack while bowling at the Tri-County Bowling Lanes. His doctors say that without the quick action taken by Curtis F. Runkles, ORGDP Barrier Manufacturing, and P. E. (Eddie) Edwards, department head in Environmental Control and Engineering at ORNL, Hillard probably would have died.

As soon as it was apparent that Hillard was in trouble, Runkles administered both heart massage

and mouth-to-mouth resuscitation and revived him. After Hillard passed out again, cardiopulmonary resuscitation was administered by Runkles and Edwards until the ambulance arrived.

Hillard, who is now recovering at his home in Oak Ridge, was discharged from the hospital on May 9. Although his chest bone was broken during the lifesaving techniques, he has no complaints. "I understand that my heart stopped several times following the attack, so I appreciate their doing what they had to do. Besides, my chest has almost completely healed," he said.

Runkles is on ORGDP's plant-wide emergency squad. He was given a special citation by the ORGDP Safety Department for his prompt action.

Anniversaries

PADUCAH

30 YEARS

Forest R. Edwards, Fabrication and Maintenance; John L. Hackney Jr., Fabrication and Maintenance; Tommy E. Pierce, Shift Operations and Plant Protection; Carl W. Walter, Technical Services; Jo W. Grisham, Finance and Materials; Frank G. Guzzy, Plant Engineering; Jim E. Dew, Cascade Operations; Rudy L. Hines, Cascade Operations; Marvin E. Wade, Power, Utilities and Chemicals.

Vernice L. Turner, Cascade Operations; Lloyd W. Jenkins, Plant Engineering; Joseph H. Wicker Jr., Power, Utilities and Chemicals; Burlond R. Murphy, Fabrication and Maintenance; Charles F. Broach, Fabrication and Maintenance; Robert W. Langston, Plant Engineering; Rodney C. Smith, Fabrication and Maintenance; E. Glenn Yates, Finance and Materials; Arthur K. Edwards, Employee Relations; Archie C. Miller Jr., Cascade Operations; Gerald F. Lotz, Shift Operations and Plant Protection; and Henry M. Morris, Fabrication and Maintenance.

George A. Stroud, Power, Utilities and Chemicals; Albert B. Temple, Finance and Materials; Robert E. Simmons, Technical Services; Thomas E. Goode, Shift Operations and Plant Protection; Ira W. Myers, Power, Utilities and Chemicals; James C. Watkins, Cascade Operations; L. C. Jamison, Cascade Operations; William A. Vanvactor, Power, Utilities and Chemicals.

Effie C. Lewis, Finance and Materials; William G. Barrett, Fabrication and Maintenance; Antoinette P. Piercy, Plant Engineering; David D. Barclay, Finance and Materials; Eugene P. Larson, Plant Engineering; Eugene S. Page, Cascade Operations; James H. Renfro, Fabrication and Maintenance; and James E. Wilkins, Cascade Operations.

25 YEARS

George B. Hayden Jr., Edward N. Cothron, Reynolds A. Goode and Donald E. Parker.

20 YEARS

William O. Brucker and Perry N. Smith.

Y-12

35 YEARS

Harlan D. Whitehead, Development Operations; and Kenneth E. Jamison, Research Services.

30 YEARS

John H. Marquiss, Security; Pauline P. Williams, Casting Department; William C. Dietrich, Development Division; Robert G. Affel, Division Safeguards; Lewis L. Gasaway, Buildings, Grounds and Maintenance Shops; Melvin L. Chandler, Process Maintenance; Chester Spradlin, Chemical Services; Leonard Nation, Buildings, Grounds and Maintenance Shops; Jack D. Bounds, Alpha 5 Processing; William H. Hubbs, 9215 Rolling Mill; Jack H. Pebley, Chemical Services; and Robert H. McNabb, Materials Forming.

25 YEARS

Everett C. Alred.

ORNL

35 YEARS

Millard L. Myers, Engineering Technology; Lewis A. Byrd, Chemical Technology; Denton C. Gary, Industrial Safety and Applied Health Physics; Mansell E. Ramsey, Central Management; Charles E. Murphy, Plant and Equipment; Hubert A. Parker, Analytical Chemistry; and William S. Hornbaker, Central Management.

30 YEARS

William C. Colwell Jr., Information; Charles R. McAmis, Instrumentation and Controls; Howard J. Hicks Sr., Engineering; and Charles W. Ownby, Chemistry.

25 YEARS

John T. Meador, Walter P. Eatherly, Peggy A. Lyons and Steve G. Makres.

20 YEARS

Robert J. Lauer.

ORGDP names UW committee

(81-2008)



ORGDP's 1981 UNITED WAY COMMITTEE includes, seated from left, Mae Ely, Lee Ford, Joe Sawicki, Edwena Crowe and Buck Alexander. Standing are Dave Rupert, Mason Oakes (co-chairman), Jack Hodge, Michael Lively, Paul Melroy, Doug Stephens and Pete Peterson (chairman).

Loebl named head of data, analysis section in ORNL Energy Division

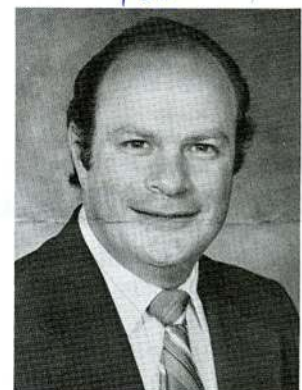
4206-81

Andrew S. Loebl has been appointed to head the new data and analysis section in the Energy Division at ORNL.

As part of a restructuring of programs in the area of energy demand analysis and conservation, Loebl's section includes a data management and analysis group, which he formerly headed; a residential, commercial and industrial energy demand analysis group; and a building conservation analysis and demand group.

Among the section's responsibilities are the validation of energy data obtained by DOE and the development, application and evaluation of computer models of the factors which determine energy use. In addition, the section will evaluate the effectiveness of various conservation initiatives. These activities provide policymakers with a foundation upon which to base decisions on future energy programs.

Loebl, who holds the Ph.D. in sociology and demography from the University of Missouri, joined Union Carbide in 1973. He previously headed the Transportation Energy Program and served as a group leader in the Health Physics Division. Currently he serves as a part-time



Loebl

assistant professor in the University of Tennessee Graduate School of Planning.

He has been a committee member of the Board on Science and Technology for International Development of the National Academy of Sciences and an associate member of the Committee on Energy Conservation and Transportation Demand of the National Research Council's Transportation Research Board. He also has served as president of the Association of Public Data Users and executive secretary of the Southern Regional Demographic Group.

Loebl and his wife, Bernice, live in Concord, Tenn. They have two children.

Check out electrical fans before use

Before using a portable electric fan, be sure to check it for the UL label, which certifies that it has been inspected and approved by Underwriters Laboratories. This means that the fan guards and grills are narrow enough to keep children's fingers away from moving parts, and that the fan is stable enough to keep from tipping over while it's running.

The following safety precautions are also recommended by Underwriters:

Place the fan and cord out of the general traffic pattern.

Position the fan on a stable, level surface.

Do not use the fan near open flames or where combustibles could be blown toward a heat source — such as near a kitchen range.

Avoid using the fan in damp areas such as bathrooms, where an electrical shock could result.

Do not attempt to move or start the fan in the dark.

Follow manufacturer's suggested safety and operating instructions.

Watch children closely and keep them away from the fan.

Safety Scoreboard

Time worked without a lost-time accident through August 6:

Y-12 Plant	317 Days	10,632,000 Employee-Hours
ORGDP	56 Days	1,563,000 Employee-Hours
ORNL	452 Days	10,590,237 Employee-Hours
Paducah	373 Days	3,439,000 Employee-Hours

Tee-Off Time Application for

August 29, 1981

(Check Appropriate Plant)

- ☐ ORGDP—Dead Horse Lake
☐ Y-12—Bays Mountain
☐ ORNL—Wallace Hills



Time Preferred

- Leader 1. _____
 2. _____
 3. _____
 4. _____

COMPLETE AND RETURN TO THE Y-12 RECREATION OFFICE
 Y-12 — BUILDING 9711-5, MS-1
 Entries must be received prior to drawing on August 26, 1981.

Tee-off times for all tournaments will be drawn on Wednesdays prior to each Saturday's tournament. Golfers are responsible for reserving their own carts by contacting the pro shop following drawing for tee-off times. Please call the Recreation Department, 4-1597, THURSDAY for tee time.

July golf tournaments...

Y-12 winners...

John Baker turned in a 71 card to win the Southwest Point contest held late in the month. He was followed by John Hamilton and Jim George, each with 74. In handicap scoring it was Conrad Strike, 77; and Bill Butterini, 76.

Division two went to Frank Clayton, 81; with Dick Keyton and Clark Tridgement tying for second place with 83 each. John Sewell's 85 was low in handicap scoring and Fred Hammond, Roger Keck, W. Boles and Jim Warwick all placed second with 86 each.

In the third division, it was J. T. McCormack, 81; and Ralph Vaughn, 89. Handicap low went to Dave Stevens and Jack Foresman, with scores of 97 and 103 respectively.

Winners may pick up their golf balls in the Recreation Office, Building 9711-5.

ORGDP victors...

Waldo Golliher scored a 75 to take the Bays Mountain cup July 25. He was followed by E. T. Strunk, a mere stroke behind. Bob Neir was low handicapper with 75; and J. D. Kirkpatrick scored a 78.

In the second division, it was Jeff Cahal, 80; and Charley Hale, 82. J. D. Lovette scored low handicap score, 81; and Carl Peterson scored an 87.

In the third flight, Tony Maki came in first with 79; followed by D. G. Richardson, 84. Low handicap cards were scored by Ron Sy, 83; and Jack Owens, also 83.

Golf balls for winners are available from Peggy Collier, Room 136, Building K-1001.

ORNL champions...

D. Kington scored a fine 70 to take the Dead Horse Lake competition. He was followed by J. Connatser, 72. W. Davis scored a 74 to take handicap lows. D. Dutton's 74 and H. Buffington's 79 tied for second low.

In the second division, it was R. Bryant, 81; and S. Smith, 82. T. Hill's 83 was low handicap score; and H. Thomas came in second, also with an 83.

In the third division, J. Womac scored an 89; and B. Denning and H. Klaus each had 92. Handicap lows went to W. Chance, 95; and H. Dickerson, 96.

Debbie Walker, Room J-108, 4500N, has the winners' golf balls.

Paducah golf...

Mike Flood captured the championship at Paducah's Open held at South Highland Country Club in Mayfield recently. Due to inclement weather, tournament play included only nine holes. Flood's winning 37 was followed by David Barclay's 38. Third place went to Eurie Smith with a 39 and Charles Turok shot a 40 to grab the fourth slot.

Andy Mason won the second flight with a 44 and Ricky Goode's 48 assured him of the third flight title. Dave West took the fourth with a 53. J. B. Howard won the closest-to-the-pin contest and Norma Smith walked away with the women's flight honors with her score of 37.

Patent granted

Melvin G. Willey, ORNL, for "Particle Blender."

Summer bowling results...

Monday Mixed...

The JW's hold a tight rein in the Monday Mixed League, as their six-game lead over the Lucky Strikes holds. Recent high pinmakers were Cheryl Womack, with a 246 game, 567 series. On the men's side it was T. H. Peek, 234 and 626. The Lucky Strikes took team honors with a 711 high game; a 2004 series.

Family Mixed...

The Oops team is still on top in the Carbide Family Mixed League, rolling on Thursday nights. Jackie Jones swept women's honors recently, scoring a 257, 293 single; a series of 601 and 709. Mike Brown tallied a 254 game, up to a 281 in handicap scoring. Richard Sampson took series honors, single of 625, series of 658.

Daytime League...

Any employee interested in joining a day bowling league should call the Recreation Department. The number is 574-1597.

Hi Power Rifle...

Frank Barnes, ORNL, won the fifth match of the High Power Rifle League, scoring a 763 out of a possible 800. Don Kiplinger, ORNL, was second with 750; Larry Weston, also of ORNL, scored a 739. Other scores were R. Wiegand, Y-12, 703; H. Fell, Y-12, 646; P. Gover, ORNL, 634; M. A. Baker, ORNL, 595; and A. Beasley, Y-12, 502.

Metal Fab picnic...

The Metal Preparation Division at Y-12 is planning its annual picnic, Saturday, September 5. Festivities get under way at 4 p.m. at Shelter #6, at Cove Lake Park.

All active employees and retirees are invited to attend. Just bring a picnic supper and drinks.

Save Energy / Share the Ride

Y-12

CAR POOL MEMBERS from West Knoxville, Lonas Road, Papermill Road, to Biology or North Portal, 8-4:30 shift. Sherrell Greene, plant phone 4-0626; or Larry Masters 4-3545.

VAN POOL VACANCY from Fountain City, Norwood and Clinton Highway areas to East and North Portals, 8-4:30 shift. Bill Moyers, plant phone 4-3195; home phone Knoxville 689-4087.

VAN POOL RIDERS from Gleason Road, Westown, Kingston Pike, via Mabry Hood Road, to any portal, 8-4:30 shift. C. W. Greene, plant phone 4-0437; home phone Knoxville 690-3762.

VAN POOL RIDERS from Maryville to East, North and Central Portals, 8-4:30 shift. G. D. Coppenger, plant phone 4-1380; home phone Maryville 983-5939.

CAR POOL MEMBERS from West Knoxville, Lonas Road, Papermill Road areas, to Biology or North Portal, 8-4:30 (prefer non-smokers). Larry Masters, plant phone 4-3545; or S. R. Greene, 4-0626.

RIDE from LaFollette, Route 1, to Central Portal, 8-4:30 shift. Linda Pickens, plant phone 4-0123; home phone LaFollette 562-7336, after 6 p.m.

RIDE from Fort Loudoun Apartments, Lenoir City, to Central Portal, 8-4:30 shift. Terry Massey, plant phone 4-0123; home phone Lenoir City 986-6267.

ORNL

VAN POOL RIDER needed from West Knoxville area (Bearden through Farragut) to main portals, 8-4:30. Dean Treadway, plant phone 4-6580; home phone 584-4879.

RIDE NEEDED from Oak Ridge Highway between Karns and Solway to East Portal, 8:15-4:45. Peterson, plant phone 4-4483; home phone 690-3989.

ORGDP and Y-12

BUS SERVICE from Rockwood, Kingston and Midtown to all portals at ORGDP and Y-12. Work phone 6-0204; home phone 882-5618.

ORGDP

CAR POOL MEMBERS needed from West Town area, Knoxville, to Portals 2 and 4, 7:45-4:15 shift. Work phone 6-0159.

RIDE needed, Eatons Cross Roads area to Portal 5, 8-4:30 shift. Paul Rutter, work phone 4-8297.



"Quality assurance today — confidence and excellence tomorrow."
 (Submitted by John K. Prickett, PGDP.)

Y-12 guard Harold Long world-renowned in karate

by Rod Guge

Few people who know Harold G. Long or have knowledge of his reputation would ever consider causing trouble at the post where he is stationed. Little wonder. Now in his third year with Y-12's Guard Department, Long is recognized as the world's highest-ranking Caucasian in the field of Isshinryu karate.

Isshinryu translates as "one heart, one mind."

A native East Tennessean, Long began studying karate in his early twenties, while stationed as a Marine on the island of Okinawa. Under the tutorship of Tatsuo Shimabuku, late master and founder of Isshinryu karate, Long devoted 8 hours a day every day for 17 months to his study and practice of the art.

Isshinryu actually is derived from two older forms of karate: Shorinryu, which is characterized by tremendous speed with little power; and Gojuryu, which has adequate power but little speed. Shimabuku combined the best parts of each to form Isshinryu, which translates as "one heart, one mind," Long said.

"At the time he formed Isshinryu, Shimabuku would take only Marines as his students. Because of the speed and quickness required for Isshinryu, Shimabuku thought only Marines were adequately equipped — both mentally and physically — to study his new form of karate," Long explained.

Isshinryu has become the most widely taught form of karate in the United States.

Long still was in the Marines when he opened this country's first school of Isshinryu karate in Twenty-Nine Palms, Calif. More schools followed, and at one time Long owned and supervised six. The phenomenon spread as many of Long's students opened their own schools in various parts of the country. During the 24 years since Long opened his first school, Isshinryu has become the most widely taught form of karate in the United States.

Regarded as a ninth degree master of his field, Long recently was awarded the red belt in karate.

There are ten degrees of black belt, Long said. To earn the first five degrees, the student must display increasing proficiency in the style and execution of maneuvers. The fifth-degree black belt is awarded when the student has achieved maximum potential in regard to physical and mental command of the art.

"After the first degree of the black belt, you begin putting back into karate what you have taken out of it," Long said. These personal contributions to the field result in the presentation of a red and white belt for

the sixth through the eighth degrees, and presentation of a red belt for the ninth and tenth degrees.

Long earned his red belt because of his major personal contributions to the field. With three books on Isshinryu karate already to his credit, Long recently authored a fourth, which he expects to be available soon. He has taught more than 40,000 pupils himself, and his students, in turn, have taught many times that number. As the man who introduced Isshinryu to the United States, Long currently is Chairman of the International Isshinryu Karate Association's Board of Directors.

"I get more of a thrill out of teaching children than anybody else."

Although Long sold his schools because "the business end began taking up too much time," he still enjoys teaching and devotes most of his time to younger age groups.

"I get more of a thrill out of teaching children than anybody else. The balance, coordination, agility and confidence they develop through the study of karate carries through to everyday life. It increases their positive thinking and their powers of concentration," he said.

Some parents have told him their children's grade point averages in school increased noticeably after they began studying Isshinryu, Long said, stressing that the art develops one's mind and body, teaching them to work together.

Long and his wife, Doris, live in Knoxville with Gary, the youngest of their three children. Although Gary and his older brothers, Richard and Michael, wear brown or green belts in karate, they were never forced to take up their father's favorite sport.

Long encouraged his sons to develop their own interests, he said, because he "didn't want them to feel that they had to live up to someone else's expectations."



Harold Long displays expert kicking form at a recent karate workshop in Nashville (above).

(Clockwise from below right) Long's red-belted "gi" karate uniform identifies his rank among professionals.

After rendering one "opponent" helpless, Long prepares to break free from the hold of a would-be assailant.

Sporting a different uniform, Long mans the guard station at Y-12's West Portal.





Vitamin E — potentially toxic

by T. A. Lincoln, M.D.

Vitamin E is regularly consumed in large amounts by some health faddists. They consider it safe and believe it keeps them young and vigorous. There is not evidence that "megadoses" of vitamin E accomplish such wonderful things. Actually, the vitamin is a potentially toxic drug.

Vitamin E is an essential nutriment with an adult requirement of only 8 to 10 mg per day. Many people consume over 100 times this amount every day.

Toxic reactions

Toxicity to vitamin E may be manifested in many different ways. One of the most common toxic reactions is thrombophlebitis. This inflammation of the deep veins of the legs may cause blood clots to form. These clots can break loose, travel to the lungs and cause a potentially fatal pulmonary embolism. Perhaps because natural phlebitis is sometimes recurrent and difficult to treat, patients often are advised by their friends to take huge doses of vitamin E as treatment. The result may be aggravation of the phlebitis rather than improvement. Women past age 40 who still take birth control pills and therefore are already more vulnerable to blood clots also may dangerously overdose themselves with vitamin E.

High blood pressure can be caused, or at least aggravated, by consuming large amounts of vitamin E. In most cases, the pressure returns to normal, or at least is lowered, after the vitamin excess is stopped.

Other effects

High doses of vitamin E may increase the levels of cholesterol and triglycerides in any person, but the effects are especially severe in women taking birth control pills. Individuals who fear that they are more vulnerable to coronary heart disease because there is a strong history of it in their families will sometimes take vitamin E to try to prevent the disease. In reality, large amounts of this vitamin may exaggerate one of the underlying causes of hardening of the arteries.

Large amounts of vitamin E are known to alter hormone metabolism and can cause enlarged breasts in men and boys. Excessive amounts disturb certain enzyme systems in the liver and reduce the concentra-

tions of thyroid hormones; there is also evidence of altered immune responses.

Intake has increased

A deficiency of vitamin E is rare in adults and is usually associated with severe chronic gastrointestinal diseases where fat absorption is grossly impaired. Examples are cystic fibrosis and biliary cirrhosis of the liver. This vitamin is fat-soluble, and anything that severely impairs fat absorption could cause a deficiency. Vitamin E is present in large amounts in vegetable oils, margarines and vegetable shortenings and in lesser amounts in leafy vegetables and whole grains.

In recent years, the use of polyunsaturated (vegetable) fats has been advocated to reduce the intake of saturated (animal) fats, which are thought to be a factor in causing coronary heart disease. Thus, the average intake of vitamin E is now higher than it used to be.

Accumulates in fat

Vitamin E accumulates in body fat, and it has been estimated that it would take approximately four years on a deficient diet to deplete the tissue stored in an adult who previously had been on a normal diet.

This vitamin was first isolated from wheat germ oil in 1936. An assay system was developed using the reproductive process in laboratory animals. As a consequence, the substance was called tocopherol, a word derived from the Greek, *tocos*, meaning childbirth; *-phero*, to bring forth; and *-al*, alcohol. It is an antioxidant and can influence reproductive performance in cases of gross deficiency. The vitamin is commonly measured in international units, which are essentially equal to milligrams. (1 international unit equals 1 mg alpha tocopherol.)

For some reason, food faddists believe that, if a little bit of a nutrient is essential, then 10 or 100 times that amount will make one extremely healthy. There is not the slightest evidence that this occurs. The logical source of the small amounts one needs is the average American diet, in which genuine deficiencies are rare. People indulging in vitamin E binges would be wise to discontinue this hazardous, expensive and useless practice.

(Editor's Note: Dr. Lincoln alternates his regular column with "The Medicine Chest," where he answers questions from employees concerning health in general. Questions are handled in strict confidence, as they are handled in our Question Box. Just address your question to "Medicine Chest," NUCLEAR DIVISION NEWS, Building 9704-2, Stop 21, Y-12, or call the news editor in your plant, and give him or her your question on the telephone.)



RECEIVE NATIONAL AWARD — Otto Tennant, president of the National Society of Professional Engineers (NSPE), was in Oak Ridge last week to present a plaque for an ORNL engineering development selected by the NSPE as one of 10 outstanding engineering achievements for 1980. The development was High Gradient Magnetic Separation of Coal, a project being conducted by Eugene Hise and Allen Holman in the Engineering Technology Division as part of ORNL's Fossil Energy Program. Shown at the presentation ceremony are, from left, ORNL Director Herman Postma, Holman, Tennant, Hise and Nuclear Division President Roger Hibbs. This is the second consecutive year that an ORNL project has been selected for an NSPE Outstanding Achievement Award. The award was presented last year for the Annual Cycle Energy System Demonstration House.

Dahl named technical assistant in Engineering Technology Division

The appointment of Thomas L. Dahl as technical assistant to the director of ORNL's Engineering Technology Division has been announced by Herbert E. Trammell, division director.

In his new position, Dahl will assist in the administration of research and development programs carried out in the division, including work in the areas of nuclear safety, fossil energy technology, experimental engineering, engineering analysis, heat transfer/fluid dynamics, solid mechanics and advanced concepts development.

Dahl holds BS and MS degrees in aerospace engineering from Mississippi State University and has done postgraduate work in nuclear engineering at Georgia Institute of Technology. He is a graduate of the Navy's Nuclear Power Program, where he served aboard the USS Enterprise as a reactor division officer with primary responsibility for operation of two naval pressurized water reactors.



Dahl

He came to the Nuclear Division in 1976, working first in ORGDP's Maintenance Division, with assignments in engineering, quality assurance and production supervision. In June 1980, he joined the Engineering Technology Division staff, where he has worked since in the fossil energy technology section.

Dahl and his wife, Betty, live in Kingston. They have two sons and two daughters.

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